09/845,742

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FILE 'HOME' ENTERED AT 10:25:51 ON 15 APR 2004

=>
=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'BIOSIS' ENTERED AT 10:26:13 ON 15 APR 2004
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FILE 'MEDLINE' ENTERED AT 10:26:13 ON 15 APR 2004

FILE 'CAPLUS' ENTERED AT 10:26:13 ON 15 APR 2004
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FILE 'WPIDS' ENTERED AT 10:26:13 ON 15 APR 2004
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FILE 'USPATFULL' ENTERED AT 10:26:13 ON 15 APR 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s (solid support? or surface?) (6a) immobil?(6a) (diels alder or cycloaddition?)
   4 FILES SEARCHED...
L1            7 (SOLID SUPPORT? OR SURFACE?) (6A) IMMOBIL?(6A) (DIELS ALDER OR
                CYCLOADDITION?)

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2            5 DUP REM L1 (2 DUPLICATES REMOVED)

=> d l2 bib abs 1-5

L2   ANSWER 1 OF 5  USPATFULL on STN
AN     2003:306367  USPATFULL
TI     Method for immobilizing oligonucleotides employing the cycloaddition
       bioconjugation method
IN     Pieken, Wolfgang, Boulder, CO, UNITED STATES
       Wolter, Andreas, Hamburg, GERMANY, FEDERAL REPUBLIC OF
       Sebesta, David P., Longmont, CO, UNITED STATES
       Leuck, Michael, Boulder, CO, UNITED STATES
       Latham-Timmons, Hallie A., Boulder, CO, UNITED STATES
       Pilon, John, Ft. Collins, CO, UNITED STATES
       Husar, Gregory M., Longmont, CO, UNITED STATES
PI     US 2003215801      A1   20031120
AI     US 2001-845742     A1   20010501 (9)
RLI    Continuation-in-part of Ser. No. US 1999-341337, filed on 8 Jul 1999,
       PENDING A 371 of International Ser. No. WO 1998-US649, filed on 8 Jan
       1998, PENDING
PRAI   US 2000-201561P     20000501 (60)
       US 2001-265020P     20010130 (60)
DT     Utility
FS     APPLICATION
LREP   SWANSON & BRATSCHUN L.L.C., 1745 SHEA CENTER DRIVE, SUITE 330, HIGHLANDS
       RANCH, CO, 80129
CLMN   Number of Claims: 22
```

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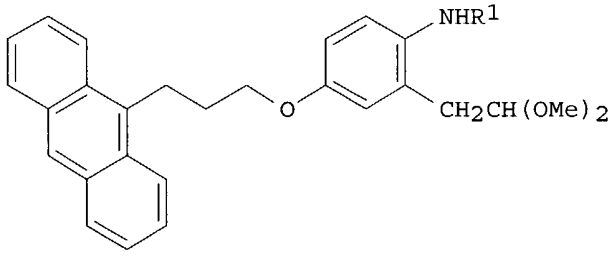
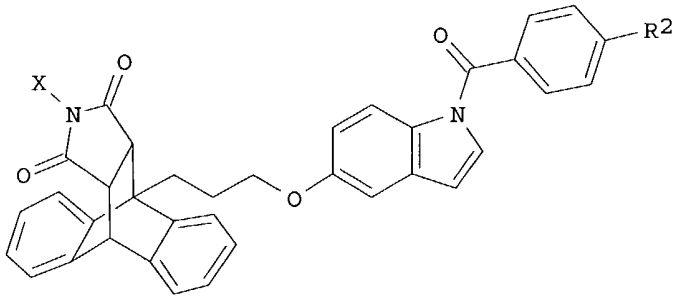
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 2144
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention discloses a novel method for immobilizing molecules to a support. Specifically, this invention discloses a method of immobilizing derivatized biomolecules, such as oligonucleotides, using cycloaddition reactions, such as the Diels-Alder reaction. Included in this invention are the novel immobilized biomolecules that can be prepared according to the method of this invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:326931 CAPLUS
DN 139:85093
TI A Novel Anthracenyl Tagged Protecting Group for "Phase-Switching" Applications in Parallel Synthesis
AU Li, Xin; Abell, Chris; Ladlow, Mark
CS University Chemical Laboratory, University of Cambridge, Cambridge, CB2 1EW, UK
SO Journal of Organic Chemistry (2003), 68(11), 4189-4194
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 139:85093
GI




I




II

AB A new "phase-switching" protecting group I (R1 = H) that facilitates the parallel synthesis of carboxylic acids, esters, and carboxamides is described. Acylation of I with 4-bromobenzoyl chloride gave the amide I

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(R1 = 4-BrC6H4CO), which was **immobilized** on **solid support** via **Diels-Alder** cycloaddn. with maleimide functionalized polystyrene resin and underwent Suzuki coupling with a series of boronic acids R2B(OH)2 (R2 = 4-MeOC6H4, 4-FC6H4, 3-thienyl) followed by intramol. heterocyclization to give the corresponding N-acyl indoles II (X = solid support). A series of carboxylic acids, esters, and carboxamides 4-R2C6H4COR3 (R3 = HO, MeO, PrN) was then prepared via activation of the "safety-catch" followed by cleavage of II on treatment with the desired nucleophile.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:181359 CAPLUS
TI Functionalization of the surface of nanoparticles via organic transformations
AU Gao, Yong
CS Department of Chemistry and Biochemistry, Southern Illinois University, Carbondale, IL, 62901-4409, USA
SO Abstracts of Papers, 225th ACS National Meeting, New Orleans, LA, United States, March 23-27, 2003 (2003), COLL-256 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69DSA4
DT Conference; Meeting Abstract
LA English
AB The first part of this presentation is to discuss our synthetic studies of a pentapeptide Phe-Ala-Ala-Ala-Ala on the surface of monolayer-protected gold nanoclusters (Au MPCs). Au MPCs protected with a layer of 1-dodecanethiol (90%) and 11-mercapto-1-undecanol (10%) were used as a template for peptide elongation. The second portion of this talk will focus on the kinetics studies of a **Diels-Alder** reaction between 9-anthracenemethyl 11-mercaptoundecanate **immobilized** on the **surface** of Au MPCs and N-(4-nitrophenyl)maleimide in D-chloroform. The reaction was found to be a second-order process that proceeded faster than the one in the solution phase. The unusual rate enhancement was probably due to the concentration of diene on the surface of Au MPCs. Our studies examined the organic transformations under the nanometer dimensions and brought insight on some nano-bio-transformations, for example, the high efficiency of peptide elongation on the surface of the 20 nm-sized ribosomal nanoparticles.

L2 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:695035 CAPLUS
DN 138:80522
TI Fabrication of nano-structure by Diels-Alder reaction
AU Matsubara, Seijiro; Yamamoto, Hiromasa; Oshima, Koichiro; Mouri, Emiko; Matsuoka, Hideki
CS Department of Material Chemistry, Graduate School of Engineering, Kyoto University, Kyoto, 606-8501, Japan
SO Chemistry Letters (2002), (9), 886-887
CODEN: CMLTAG; ISSN: 0366-7022
PB Chemical Society of Japan
DT Journal
LA English
AB A dip-pen nanolithog. is described which is based on Diels-Alder reaction of (hydroxyoxatridecanyl)furan (ink) with undecene-modified silica surface. This is a simple method to construct a nano-line and a nano-site which contains hetero-atoms regularly on the flat hydrophobic alkene surface.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L2 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2001:491301 BIOSIS
DN PREV200100491301
TI Covalent modification and **surface immobilization** of nucleic acids via the **Diels-Alder** bioconjugation method.
AU Husar, Gregory M.; Anziano, Dominick J.; Leuck, Michael; Sebesta, David P. [Reprint author]
CS Proligo, LLC, 2995 Wilderness Place, Suite 207, Boulder, CO, 80301, USA
SO Nucleosides Nucleotides and Nucleic Acids, (2001) Vol. 20, No. 4-7, pp. 559-566. print.
ISSN: 1525-7770.
DT Article
LA English
ED Entered STN: 24 Oct 2001
Last Updated on STN: 23 Feb 2002
AB The importance of chemically modified and surface immobilized nucleic acids has inspired the development of a wide variety of complementary techniques for covalent oligonucleotide preparation and immobilization. We are developing technology based on the use of a Diels-Alder reaction for accomplishing the covalent modification of oligonucleotides. Reported herein is preliminary progress toward the establishment of robust reagents for introducing the reactive functionality, as well as studies employing the BIACORE system to demonstrate surface immobilization by the method.

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=> s (solid support? or surface?) (8a) (diels alder or cycloaddition?)
   4 FILES SEARCHED...
L3          316 (SOLID SUPPORT? OR SURFACE?) (8A) (DIELS ALDER OR CYCLOADDITION?
                )

=> s (solid support? or surface?) (6a) (diels alder or cycloaddition?)
   4 FILES SEARCHED...
L4          260 (SOLID SUPPORT? OR SURFACE?) (6A) (DIELS ALDER OR CYCLOADDITION?
                )

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5           243 DUP REM L4 (17 DUPLICATES REMOVED)

=> s l5 and py<=1998
   2 FILES SEARCHED...
   4 FILES SEARCHED...
L6           99 L5 AND PY<=1998

=> s l6 and (biomolecule? or macromolecule? or label?)
L7            3 L6 AND (BIOMOLECULE? OR MACROMOLECULE? OR LABEL?)

=> d l7 bib abs 1-3

L7   ANSWER 1 OF 3  USPATFULL on STN
AN     2001:112515  USPATFULL
TI     Method for solution phase synthesis of oligonucleotides
IN     Pieken, Wolfgang, Boulder, CO, United States
       McGee, Danny, San Mateo, CA, United States
       Settle, Alecia, Superior, CO, United States
       Zhai, Yansheng, Palo Alto, CA, United States
       Huang, Jianping, Lafayette, CO, United States
PA     Proligo LLC, Boulder, CO, United States (U.S. corporation)
PI     US 6262251         B1   20010717
       WO 9714706  19970424                                              <--
AI     US 1998-51449           19980406 (9)
       WO 1996-US16668         19961017
                               19980406  PCT 371 date
                               19980406  PCT 102(e) date
PRAI   US 1995-5619P       19951019 (60)
DT     Utility
FS     GRANTED
EXNAM  Primary Examiner: Wilson, James O.; Assistant Examiner: Owens, Howard
LREP   Swanson & Bratschun LLC
CLMN   Number of Claims: 64
ECL    Exemplary Claim: 1
DRWN   9 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 2746
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     This invention discloses an improved method for the sequential solution
       phase synthesis of oligonucleotides. The method lends itself to
       automation and is ideally suited for large scale manufacture of
       oligonucleotides with high efficiency.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7   ANSWER 2 OF 3  USPATFULL on STN
AN     93:50606  USPATFULL
TI     Sequential peptide and oligonucleotide syntheses using immunoaffinity
       techniques
IN     Coolidge, Thomas R., Falls Village, CT, United States
```

09567863

Lewis, William, Lincoln, NE, United States
Schuster, Sheldon M., Gainesville, FL, United States
Wylie, Dwane, Lincoln, NE, United States
Wagner, Fred W., Walton, NE, United States
Stout, Jay, Lincoln, NE, United States
van Heeke, Gino, Gainesville, FL, United States
PA BioNebraska, Inc., Lincoln, NE, United States (U.S. corporation)
Board of Regents of the University of Nebraska, Lincoln, NE, United States (U.S. corporation)
PI US 5221736 19930622 <--
AI US 1989-454372 19891221 (7)
RLI Continuation-in-part of Ser. No. US 1988-288009, filed on 21 Dec 1988, now patented, Pat. No. US 5049656
DT Utility
FS Granted
EXNAM Primary Examiner: Moskowitz, Margaret; Assistant Examiner: Marschel, Ardin H.
LREP Merchant, Gould, Smith, Edell, Welter & Schmidt
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1822
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention is directed to a method of purifying sequentially synthesized peptides and oligonucleotides by affinity techniques. Selected products are capped with and N-terminus capping agent for peptides or a 5'-terminus capping agents for oligonucleotides, and then bound with affinity agents that are selective for the corresponding capping agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 3 OF 3 USPATFULL on STN
AN 89:43432 USPATFULL
TI Luminescent cyclic hydrazides for analytical assays
IN Belanger, Alain, Cap-Rouge, Canada
Brassard, Paul, Ste-Foy, Canada
PA Universite Laval, Quebec, Canada (non-U.S. corporation)
PI US 4835268 19890530 <--
AI US 1987-46869 19870507 (7)
PRAI CA 1986-508758 19860508
DT Utility
FS Granted
EXNAM Primary Examiner: Warden, Robert J.; Assistant Examiner: Benson, Robert
LREP Swabey, Mitchell, Houle, Marcoux & Sher
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 878
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed herein are derivatives of 5-(lower alkyl)-7-amino-2,3-dihydro-1,4-phthalazinedione having substituents on the amino group. The derivatives have luminescent properties which render them useful as analytical tools in clinical chemistry. Adaptation of the derivatives for luminescent immunoassay provides valuable reagents and assays with outstanding sensitivity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09/845,742

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FILE 'HOME' ENTERED AT 09:41:06 ON 15 APR 2004

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'BIOSIS' ENTERED AT 09:41:24 ON 15 APR 2004
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FILE 'MEDLINE' ENTERED AT 09:41:24 ON 15 APR 2004

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FILE 'USPATFULL' ENTERED AT 09:41:24 ON 15 APR 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> immobili? (3a) solid support? and Diels alder
IMMOBILI? IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s  immobili? (3a) solid support? and Diels alder
L1          47 IMMOBILI? (3A) SOLID SUPPORT? AND DIELS ALDER

=> s l1 and bio?
   4 FILES SEARCHED...
L2          43 L1 AND BIO?

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           43 DUP REM L2 (0 DUPLICATES REMOVED)

=> s l3 and py<=1998
   2 FILES SEARCHED...
   4 FILES SEARCHED...
L4           6 L3 AND PY<=1998

=> d l4 bib abs 1-6

L4   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1997:44661  CAPLUS
DN   126:55924
TI   Nucleic acid detection and amplification by chemical linkage of
     oligonucleotides
IN   Segev, David
PA   Bio-Rad Laboratories Inc., USA; Segev, David
SO   PCT Int. Appl., 128 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
```

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| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 9634984 | A1 | 19961107 | WO 1996-US6042 | 19960430 | <-- |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI | | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN | | | | | |
| | US 5843650 | A | 19981201 | US 1995-431527 | 19950501 | <-- |
| | CA 2217325 | AA | 19961107 | CA 1996-2217325 | 19960430 | <-- |
| | AU 9659183 | A1 | 19961121 | AU 1996-59183 | 19960430 | <-- |
| | EP 828856 | A1 | 19980318 | EP 1996-916435 | 19960430 | <-- |
| | R: DE, FR, GB, IT | | | | | |
| | JP 11504517 | T2 | 19990427 | JP 1996-533438 | 19960430 | |
| PRAI | US 1995-431527 | | 19950501 | | | |
| | WO 1996-US6042 | | 19960430 | | | |

AB The invention is directed towards a method of amplifying target nucleic acids by using two oligonucleotide probe complement pairs. Each member of the probe pair contains a chemical functionality group which permits linkage of the probes when the functionality groups are adjacent to one another following hybridization of the probe pairs to the template. One probe in each pair is composed of two regions, a first region which hybridizes to the target and which contains the chemical functionality group and a second, protecting region which prevents target independent joining. The other probe in the pair contains the corresponding chemical functionality group. Upon joining of a first probe pair, an amplification can proceed in which the newly joined first probe pair can serve as a template for the second, complementary probe pair, which can in turn serve as a template for unjoined first probe pairs. This cyclic amplification is sensitive enough for a discriminative amplification of sequences which differ by merely a point mutation and therefore is suitable for point mutation detection and genotype determination as well as for the determination of the presence or absence of a specific nucleic acid in a sample. This nucleic acid amplification and detection method does not require use of polymerase or ligase. The products may be detected by a number of different methods, e.g. by electrophoretic size or through use of fluorometric labels or proximity labels. The method was demonstrated by detection of human papilloma virus type 16 using probe pairs containing propene and maleic acid reactive groups which react via a **Diels-Alder** reaction when the probes are hybridized to a target. In a modification of this method, one component of the probe pairs was 5'-labeled with fluorescein, another component with **biotin**. After amplification the reaction mixture was subjected to exonuclease VII digestion and probe duplexes were **immobilized** on avidin-coated **solid support**. Fluorescein, released by the exonuclease treatment and detected by fluorometry, was an indication of the presence of HPV-16.

L4 ANSWER 2 OF 6 USPATFULL on STN
AN 1998:42258 USPATFULL
TI Exopeptidase catalyzed site-specific bonding of supports, labels and **bioactive** agents to proteins
IN Wagner, Fred W., Walton, NE, United States
Coolidge, Thomas R., Falls Village, CT, United States
Wylie, Dwane E., Lincoln, NE, United States
Schuster, Sheldon M., Gainesville, FL, United States
Lewis, William, Lincoln, NE, United States
Stout, Jay, Lincoln, NE, United States
PA Board of Regents of the University of Nebraska, Lincoln, NE, United States (U.S. corporation)
PI US 5741686 19980421 <--

. 09567863

AI US 1994-316810 19941003 (8)
RLI Continuation of Ser. No. US 1993-61913, filed on 14 May 1993, now abandoned which is a continuation of Ser. No. US 1989-375138, filed on 30 Jun 1989, now patented, Pat. No. US 5279954
DT Utility
FS Granted
EXNAM Primary Examiner: Naff, David M.
LREP Merchant Gould Smith Edell Welter & Schmidt
CLMN Number of Claims: 19
ECL Exemplary Claim: 17
DRWN 4 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1520
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for preparing a labeled protein, immobilized protein or protein-**bioactive** agent composition by attaching a label, support or **bioactive** agent to a protein by exopeptidase catalysis at a site that is remote from the active site of the protein. More specifically, an amine or alcohol group of an amino acid, amine or alcohol nucleophile is reacted by exopeptidase catalysis with a C-terminus carboxylic acid group of a protein such as an antibody, enzyme or hormone to couple the nucleophile to the protein to form an adduct, and the adduct is bound to an auxiliary substance such as a support, label or **bioactive** agent or its combination with a linker arm by reacting a reactive substituent of the nucleophile with a reactive group of the auxiliary substance. Alternatively, the nucleophile is bound to the auxiliary substance or its combination with a linker arm to form an intermediate, and the intermediate is coupled by exopeptidase catalysis to the protein. The exopeptidase may be a serine or cysteine exocarboxypeptidase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 3 OF 6 USPATFULL on STN
AN 1998:25397 USPATFULL
TI Enantiomeric enrichment of bicyclic alcohols
IN West, J. Blair, Bend, OR, United States
DeVries, Keith, Old Saybrook, CT, United States
PA Bend Research, Inc., Bend, OR, United States (U.S. corporation)
PI US 5726344 19980310 <--
AI US 1995-515153 19950815 (8)
RLI Continuation of Ser. No. US 1994-275132, filed on 13 Jul 1994, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Geist, Gary; Assistant Examiner: Padmanabhan, Sreeni
LREP Chernoff, Vilhauer, McClung & Stenzel, LLP
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 334
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There is disclosed a two-stage enzymatically catalyzed reaction for the selective preparation of the (R)-endo-isomer of norbornenol from a mixture containing all four stereo- and regioisomers of norbornenol, as well as the synthesis of the intermediate product comprising the enantiomerically enriched mono-ester of (R)-endo-norbornenol and a diacid, and of the enantiomerically enriched saturated alcohol (R)-endo-norborneol. There is also disclosed a method for the production of (R)-endo-norborne-2-ol, by chemical reduction of either the enantiomerically enriched monoester and subsequent hydrolysis, or by hydrolysis of the enantiomerically enriched monoester and then chemical reduction.

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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 4 OF 6 USPATFULL on STN
AN 94:5808 USPATFULL
TI Exopeptidase catalyzed site-specific bonding of supports, labels and **bioactive** agents to proteins
IN Wagner, Fred W., Walton, NE, United States
Coolidge, Thomas R., Falls Village, CT, United States
Wylie, Dwane E., Lincoln, NE, United States
Schuster, Sheldon M., Gainesville, FL, United States
Lewis, William, Lincoln, NE, United States
Stout, Jay, Lincoln, NE, United States
PA Board of Regents of the University of Nebraska and BioNebraska, Lincoln, NE, United States (U.S. corporation)
PI US 5279954 19940118 <--
AI US 1989-375138 19890630 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Naff, David M.
LREP Merchant, Gould, Smith, Edell, Welter & Schmidt
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1770
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides a means for attaching a label, support or **bioactive** agent to a protein with an exopeptidase at a site that is remote from the active site of the protein. More specifically the invention is directed to a method for the attachment of an amino acid, amine and alcohol nucleophile to the carboxyl terminus of a protein. In one embodiment, a labeled nucleophile is attached to a protein such as an antibody. In other embodiments, the invention is directed to a method for the attachment of a protein to an immobilization support and to a method for the attachment of a **bioactive** agent to a protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 5 OF 6 USPATFULL on STN
AN 93:65292 USPATFULL
TI Exopeptidase catalyzed site-specific bonding of supports, labels and **bioactive** agents to proteins
IN Wagner, Fred W., Walton, NE, United States
Coolidge, Thomas R., Falls Village, CT, United States
Schuster, Sheldon M., Gainesville, FL, United States
Stout, Jay, Lincoln, NE, United States
Wylie, Dwane E., Lincoln, NE, United States
Breddam, Klaus, Glostrup, Denmark
Lewis, William, Lincoln, NE, United States
PA Board of Regents of the University of Nebraska, Lincoln, NE, United States (U.S. corporation)
BioNebraska, Inc., Lincoln, NE, United States (U.S. corporation)
PI US 5234820 19930810 <--
AI US 1990-545915 19900628 (7)
RLI Continuation-in-part of Ser. No. US 1989-375138, filed on 30 Jun 1989
DT Utility
FS Granted
EXNAM Primary Examiner: Naff, David M.
LREP Merchant, Gould, Smith, Edell, Welter & Schmidt
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 2 Drawing Page(s)

09567863

LN.CNT 1768
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An auxiliary substance such as a label, support, or **bioactive** agent is attached to a protein at a site that is remote from the active site of the protein by the use of exopeptidase and a nucleophile which is an amino acid, amino acid derivative, amine or alcohol. In one embodiment, the nucleophile is attached to the carboxy terminus of a protein by catalysis with exopeptidase to form an adduct and then the adduct or its combination with a linker arm is bound to the auxiliary substance. In another embodiment, the auxiliary substance or its combination with a linker arm is bound to the nucleophile to form an intermediate substance which is then coupled by catalysis with exopeptidase to the carboxy terminus of a protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 6 OF 6 USPATFULL on STN
AN 93:50606 USPATFULL
TI Sequential peptide and oligonucleotide syntheses using immunoaffinity techniques
IN Coolidge, Thomas R., Falls Village, CT, United States
Lewis, William, Lincoln, NE, United States
Schuster, Sheldon M., Gainesville, FL, United States
Wylie, Dwane, Lincoln, NE, United States
Wagner, Fred W., Walton, NE, United States
Stout, Jay, Lincoln, NE, United States
van Heeke, Gino, Gainesville, FL, United States
PA BioNebraska, Inc., Lincoln, NE, United States (U.S. corporation)
Board of Regents of the University of Nebraska, Lincoln, NE, United States (U.S. corporation)
PI US 5221736 19930622 <--
AI US 1989-454372 19891221 (7)
RLI Continuation-in-part of Ser. No. US 1988-288009, filed on 21 Dec 1988, now patented, Pat. No. US 5049656
DT Utility
FS Granted
EXNAM Primary Examiner: Moskowitz, Margaret; Assistant Examiner: Marschel, Ardin H.
LREP Merchant, Gould, Smith, Edell, Welter & Schmidt
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1822
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention is directed to a method of purifying sequentially synthesized peptides and oligonucleotides by affinity techniques. Selected products are capped with and N-terminus capping agent for peptides or a 5'-terminus capping agents for oligonucleotides, and then bound with affinity agents that are selective for the corresponding capping agents.

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L4 ANSWER 3 OF 6 USPATFULL on STN
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SUMM . . . the corresponding saturated alcohol norborneol ([2.2.1]-bicyclo-heptan-2-ol) are important intermediates for the production of numerous classes of compounds including pharmaceuticals. When **biologically** active norbornenol derivatives are prepared

that contain chiral centers, it is often highly desirable that they be in an enantiomerically. . .

SUMM . . . that alcohols can be resolved by enzyme-catalyzed hydrolysis of esters of the alcohol. For example, Cambou et al., in 26 **Biotechnol**. **Bioeng**. 1149(1984), disclose the resolution of sec-butanol by hydrolysis of its butyric acid ester with Candida cylindracea lipase. However, the resolution. . .

SUMM . . . the (R)-endo-isomer. The method comprises first hydrolyzing (Reaction I) a mixture of ester isomers such as that obtainable from a **Diels-Alder** coupling of vinyl acetate and cyclopentadiene (Ester I) with a hydrolase enzyme (Enzyme I) in a chiefly aqueous reaction medium.. . .

SUMM . . . Enzyme II must have an aggregate selectivity toward the (R)-endo-isomer over each of the three isomers. Enzyme II is preferably **immobilized** onto a **solid support** by absorption or by covalent bonding. Immobilization may be accomplished by preparing a slurry of the solid support in an. . .